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Addresses: Dr W. R. P. Bourne, Department of Zoology, Aberdeen University, Tillydrone Avenue, Aberdeen AB9 2TN, U.K. Commander M. B. Casement, Dene Cottage, West Harting, Petersfield, Hants GU31 5PA, U.K.

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Supernumerary rectrices

by *Kenneth C. Parkes*

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In the past several years there has been a succession of papers on abnormal numbers of rectrices and remiges in birds, the most recent being that of Saini & Toor (1988). In that paper will be found a list of references to other papers on the subject, which will not be repeated here.

Saini & Toor state that “cases of anisorectricial birds have been reported in 45 species belonging to 16 families (Hammer 1985)”. This wording gives the impression that this is the total number of such reports for all birds, whereas it is merely the figure for those birds that were handled by Hammer and her colleagues in Malawi and Mozambique. It does not include abnormal rectrix numbers reported by other authors.

I have been waiting in vain for any of this series of papers to mention that I published a note on an “anisorectricial” specimen as long ago as 1950, but I can understand that authors based in Africa and Asia (as all of the authors of these recent papers have been) may not have access to the standard North American journals. I therefore depart from custom and repeat, in abridged form, the information published in that note (Parkes 1950).

Specimen no. 15791 in the collection of Cornell University, Ithaca, New York, is a Yellow-winged or Carmiol's Vireo *Vireo carmioli* collected by Austin Paul Smith at 9000 feet elevation on Volcán Turrialba, Costa Rica, on 24 November 1922. The specimen appears normal in all respects save that it possesses 15 rectrices, all fully grown with no basal sheathing. The three extra feathers are morphologically of the shape of the normal central pair, with the rachis centrally located. The follicles appear to have been duplicated laterally rather than dorsoventrally, making it difficult to determine which three of the five “central” rectrices are the supernumeraries.

Saini & Toor also state that “normally, birds have a species-specific fixed number of primaries, secondaries and rectrices”. This is probably true for most passerines; with sample sizes ranging from 50 to 2238 for 30 passerine species, Hammer recorded only 20 individuals, of 14

species, with supernumerary rectrices. Many but not all non-passerines tend to have fixed numbers of rectrices. In my 1950 note I cited a personal communication from Professor A. A. Allen to the effect that supernumerary rectrices "are not uncommon in the Ruffed Grouse (*Bonasa umbellus*) and perhaps in other gallinaceous birds". Subsequently Short (1967), in connection with his review of the genera of grouse, found that rectrix number in this subfamily (Phasianidae, Tetraoninae) is exceptionally variable. In 168 museum specimens of *Dendragapus obscurus* he found individuals with 16, 17, 18, 19, 20 and 22 rectrices, although the earlier literature had given 20 rectrices as a generic character for *Dendragapus*. Short found geographic variation in this species such that the rectrix numbers in one subspecies group clustered around 18, and in another group around 20. Similarly, in 66 *Canachites* (now *Dendragapus*) *canadensis* he found 14, 15, 16, 17 and 18 rectrices (modal number 16), and in 396 *Bonasa umbellus* 14, 16, 18, 19 and 20 (modal number 18).

I suspect that a study of similar numbers of specimens of some other galliform species might well reveal this kind of variability. Other non-passerines are obviously more consistent. Saini & Toor found only one supernumerary rectrix among 206 specimens of "Ring" [=Collared] Dove *Streptopelia decaocto*, and none in 127 "Blue Rock Pigeon" [=Rock Dove] *Columba livia*. This would suggest stability in the number of rectrices in Columbidae, but Hanmer (1985) and her colleagues examined 7 African species of this family, with sample sizes from 8 to 193, and found at least 1 supernumerary rectrix in all species except *Streptopelia decipiens* (sample size 57). They had only 8 *Treron australis*, but one of these was their only columbid to exhibit 2 supernumerary rectrices.

Somadikarta (1984) introduced the term "polyrectricity" for the "occurrence of more than a normal number of tail feathers in a bird". Although I find this word difficult to remember and impossible to pronounce, it is probably useful as an available noun for the phenomenon of supernumerary rectrices.

Hanmer (1985) introduced the term "anisorectricial" for tails with abnormal numbers of rectrices, but the term is of dubious usefulness. Her Table 2 is a summary of families and genera in which "anisorectricial" birds were found at the Malawi and Mozambique study sites, including figures for percent aberrant. Those figures are misleading, however, as they include birds with rectrices both greater and fewer than the normal number, and one must consult her Table 1 to learn how many individuals had supernumerary rectrices, and then compute a separate percentage figure. The explanation for abnormal numbers of rectrices is unknown, although both Hanmer and Saini & Toor postulate vaguely that such numbers may be "of phylogenetic origin", presumably reflecting a continuing evolutionary trend toward the reduction of rectrix numbers for those with abnormally few rectrices, and some sort of "throwback" phenomenon for those with supernumerary rectrices. But there is no evidence that the same mechanism is responsible for both missing and extra rectrices, and (especially in cases of odd-numbered and thus asymmetrical rectrices,

as in the *Vireo* mentioned above) I suspect that the explanation is more probably a developmental accident than any recapitulation of a more primitive number of rectrices. Somadikarta (1984) stated that "Further investigations will be needed to show whether polyrectricity is caused by chromosomal anomaly". Such investigations will, of course, be difficult; it might, however, be possible to determine the genetic basis controlling rectrix number by selective breeding of a domestic species.

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Address: Dr Kenneth C. Parkes, Carnegie Museum of Natural History, 4400 Forbes Ave., Pittsburgh, PA 15213, U.S.A.

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IN BRIEF

A NEW RECORD OF THE SICKLE-WINGED NIGHTJAR *ELEOTHREPTUS ANOMALUS* FOR SOUTHERN BRAZIL

The Sickle-winged Nightjar *Eleothreptus anomalus* is a bird of open areas, ranging from central Brazil to northeastern and eastern Argentina, including Paraguay and Uruguay. There are few recent records, and it is considered to be endangered (Bernardes *et al.* 1990, Collar *et al.* 1992). In Brazil, during the last 30 years, there are only four known records: in 1971 in Pântano Grande (Rio Grande do Sul); in 1978 at the Parque Nacional de Brasília (Distrito Federal); in 1986 at the Reserva Biológica Cambuí, municipality of Curitiba (Paraná); and in 1988 in Laranjeiras, municipality of Piraquara (Paraná) (Straube 1991, Belton 1994).

On 27 August 1994 we found a specimen in a wetland in the Fazenda Santa Rita, municipality of Palmeira, Paraná (25°18'S, 49°52'W); it had fallen to the ground with a broken wing, possibly as a consequence of collision with a power line which passed over the place at a height of approximately 10 m. The area is characterized by extense fields, and patches of *Araucaria angustifolia* (Parana Pine) forest. The specimen was collected and proved to be an adult male with developed gonads; it has been deposited in the Museu de História Natural "Capão da Imbuia", Curitiba (MHNCI 4240). An interesting aspect is that this record once again concerns a crippled individual. All the other recent records were traffic victims.

In the surroundings of the Fazenda Santa Rita, as well as in the entire state of Paraná, there has been drastic destruction of natural habitats, with total loss (e.g. in the case of agriculture), or drastic